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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Owens et al.

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Serial No.: 10/661,157

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Filed: 11 September 2003

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For: SECURITY ENCLOSURE FOR A CONTROL APPARATUS)

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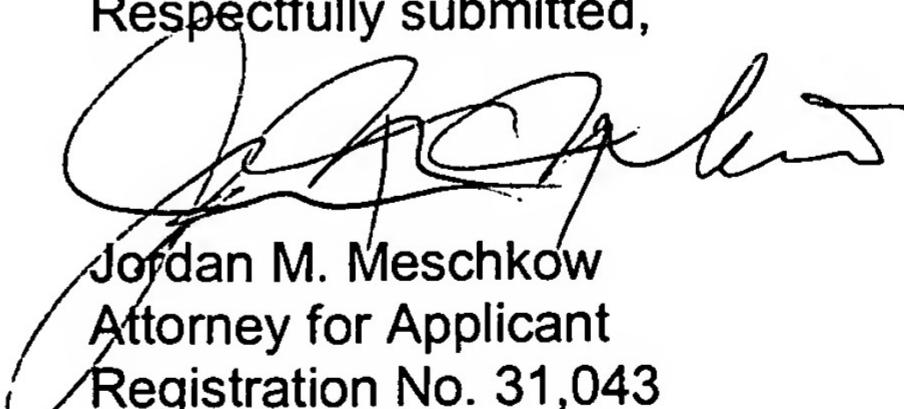
28 September 2006

Date

28 September 2006

Signature

Respectfully submitted,


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| Application of: Owens et al. | Date: 28 September 2006 |
| Serial Number: 10/661,157 | Group Art Unit: 3753 |
| Filed: 11 September 2003 | Examiner: Craig M. Schneider |
| Title: "Security Enclosure for a Control Apparatus" | Attorney Docket No.: 8022-A-1 |

Assistant Commissioner for Patents
P.O. Box 1450
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APPELLANTS' BRIEF

Dear Sir:

This Brief is filed pursuant to a Notice of Appeal mailed on 7 September 2006 in the matter of the above-identified application.

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Real Party in Interest

Cage-It Enterprises, Inc., is the real party in interest and the assignee of this application.

Related Appeals and Interferences

The Appellants are aware of no related appeals, interference, and/or other proceedings relevant to this discussion.

Status of Claims

Claims 1-20, of which claims 1, 15, and 20 are independent claims, are presented herein. Claims 1, 2, 4, 6, and 8-13 have been rejected, claims 5, 7, and 14 have been objected to, claim 3 has been withdrawn, and claims 15-20 have been allowed.

Claims 1-2, and 4-14 are on appeal.

Appendix A provides a clean copy of all claims on appeal as well as allowed claims 15-20.

Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Davenport, U.S. Patent No. 4,890,638 (hereinafter Davenport).

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davenport in view of GuardShack Product Line Brochure, printed in 2000, by Backflow Prevention Device InnClosures (hereinafter GuardShack).

Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davenport in view of GuardShack as applied to claim 11, and further in view of Clements et al., U.S. Patent No. 6,203,591 (hereinafter Clements).

Appendix B provides copies of the Davenport, GuardShack, and Clements references.

Status of Amendments

No amendments have been filed subsequent to the third Office Action dated 14 June 2006.

Summary of Claimed Subject Matter

Appendix C provides copies of drawing sheets 1/7 through 7/7 containing FIGs. 1-10, FIGs. 1-5 of which are referred to herein.

The present invention relates to a tamper-resistant security enclosure for a control apparatus, such as a backflow prevention assembly.

In the following discussion, subscripted and bracketed numbers at the end of each sentence indicate the relevant paragraph(s) in the Specification.

FIGs. 1 and 2 depict end and face views, respectively, of a security enclosure 20_[0032]. FIGs. 3 and 4 depict cross-sectional end and face views, respectively, of enclosure 20 with body panel 24 and end panels 26 removed to demonstrate construction of enclosure 20 and encompassment of an apparatus 22 therein_[0032]. FIG. 3 is taken at line 3-3 of FIG. 2_[0032]. FIG. 5 depicts an exploded isometric view of a portion of security enclosure 20 taken between lines 5-5 of FIG. 4 and demonstrating, among other things, the engagement of a lock device 74_[0032]_[0063]. The following discussion is limited to FIGs. 1 through 5_[0032].

Security enclosure 20 is a high-strength, attack-resistant enclosure intended to encompass a backflow prevention assembly, vacuum relief valve, clock, flow meter, and/or other fluid-control apparatus 22_[0033]. Enclosure 20 is made up of a cage 28 secured to a base 30_[0034]. Base 30 is typically a cast concrete

pad residing upon the Earth 32 and configured to surround and secure piping 34 (FIG. 4) leading to and from apparatus 22_[0034].

An "H" mounting member 40 is embedded within base 30 when base 30 is cast_[0043]. Mounting member 40 incorporates a mounting shank 38 cast completely within base 30 (i.e., embedded within base 30)_[0036]. Mounting member 40 also incorporates two opposing mounting straps 36 joined to and by mounting shank 38 and extending substantially perpendicularly from base 30 into cage 28_{[0035][0036]}. Mounting straps 36 are therefore partially embedded within base 30_[0036]. Cage 30 is secured to base 30 via mounting straps 36_[0035]. The use of mounting straps 36 eliminates the necessity of bolts or other fasteners to secure cage 28 to base 30_[0043].

Angle members 50 form a substantially rectangular "bottom" for cage 28_[0045]. In each of a pair of opposing angle members 50 there exists a strap engagement slot 58_[0054]. Lock plates 68 are affixed to angle members 50 having strap engagement slots 58_[0057].

Each of mounting straps 36 has a strap lock hole 70 proximate its free end_[0061]. Each of lock plates 68 has a cage lock hole 72 positioned so that, when cage 28 is connected to base 30 and encompasses apparatus 22, mounting straps 36 extend into cage 28 through strap engagement slots 58 and cage lock holes 72 are substantially aligned with strap lock holes 70_{[0054][0062]}.

Enclosure 20 includes a lock device 74 consisting of a lock rod 76 and a lock tab 78_[0063]. Cage 28 is secured to base 30 by inserting lock rod 76 through cage and strap lock holes 72 and

70 [0063]. Lock rod 76 then secures cage 28 to base 30, and therefore secures apparatus 22 within cage 28 [0063].

Grounds of Rejection to Be Reviewed on Appeal

The following grounds of rejection are presented for review:

1. Whether independent claim 1 is anticipated under 35 U.S.C. 102(b) by Davenport.

Arguments

Grounds of Rejection 1 -- Independent Claim 1

A third Office Action dated 14 June 2006 rejected independent claim 1 under 35 U.S.C. 102(b) as being anticipated by Davenport.

In independent claim 1, reproduced here for the convenience of the Board, the Appellants claim [emphases added] :

Claim 1: A security enclosure for a control apparatus, said enclosure comprising:

a base;

a cage configured to connect to said base and encompass said apparatus;

a mounting member comprising:

a mounting shank embedded within said base; and

a mounting strap partially embedded within said base and joined to said mounting shank, and configured to extend inside said cage substantially perpendicular to said base when said cage is connected to said base; and

a lock device configured to secure said cage to said mounting strap when said cage is connected to said base.

The rejection of independent claim 1 specifically states [emphases added] :

Davenport discloses a security enclosure (90) for a control apparatus (11), the enclosure comprising a base (22), a cage (91, 92, 93, 94, and 95) configured to connect to the base and encompass the apparatus, a mounting member comprising and *a mounting strap (106 and 108 to 112 on the left of 108 and to the mounting shank) partially embedded within the base and joined to the mounting shank* and configured to extend inside the cage substantially perpendicular

to the base when the cage is connected to the base and when the cage is connected to the base (col. 5, line 56 onto col. 6, line 58).

With regard to independent claim 1, the Office Action makes three erroneous assertions, i.e., that:

Davenport discloses:

a mounting strap (106 and 108 to 112 on the left of 108 and to the mounting shank) partially embedded within the base and joined to the mounting shank;

a mounting shank (the middle 112) embedded within the base; and

a lock device (115) configured to secure the cage to the mounting strap.

In the first erroneous assertion, the Office Action asserts:

Davenport discloses...a mounting strap (106 and 108 to 112 on the left of 108 and to the mounting shank) partially embedded within the base and joined to the mounting shank....

In column 6, lines 13-20 and 21-26, Davenport states [emphases added] :

The cover member 90 is secured around the backflow prevention device 11 upon the same concrete foundation or platform member 22..., **by a rectangular frame 105...made up of elongated angle members 106, 107, 108, and 109....each of the angle members 106, 107, 108, and 109 has its bottom horizontal flange 110 projecting laterally outward from its vertical flange 111.**

The horizontal flanges 110 are secured to the concrete platform member 11 by anchor hooks 112, which are preferably pre-welded to the bottom surfaces of the horizontal flanges 110 and embedded in the concrete platform member 22 before the concrete is poured or before it has set.

The Office Action uses the ambiguous phrase "a mounting strap (106 and 108 to 112 on the left of 108 and to the mounting shank) partially embedded within the base." The Appellants take this phrase on its whole to mean the Davenport rectangular frame 105 comprising angle members 106, 107, 108, and 109, each of which comprises horizontal flange 110 and vertical flange 111, with anchor hooks 112 fastened to horizontal flange 110.

Davenport FIGS. 10, 11, and 12, clearly show that neither rectangular frame 105, nor any component part 106, 107, 108, 109, 110, or 111 thereof, is embedded in the base (concrete platform member) 22 to any degree whatsoever. This being the case, the assertion that rectangular frame 105 of Davenport is equivalent to the claimed "a mounting strap partially embedded within said base" is false.

Because the phrase "a mounting strap (106 and 108 to 112 on the left of 108 and to the mounting shank) partially embedded within the base" is so ambiguous, it is possible that the Office Action alternatively intends to assert that anchor hooks 112 are a part of rectangular frame 105. This assertion fails on three points.

First point: the Office Action first asserts that the Davenport anchor hooks 112 are equated with the Appellants' mounting shank (as discussed hereinafter). The Office Action then, in the same sentence, asserts that the anchor hooks are a part of the Appellants' mounting strap. This double assertion is illogical. The self-same anchor hook 112 cannot be both mounting shanks and a part of a mounting strap.

In independent claim 1, the mounting strap and the mounting shank are distinct and different components of the mounting member. In addition to being claimed as different components, this is dramatically illustrated in Appellants' FIG. 5.

Were the Davenport anchor hook to be equivalent to the Appellants' mounting shank, then it cannot also be equivalent to a part of the Appellants' mounting strap. Likewise, were the Davenport anchor hook to be equivalent to a component of the Appellants' mounting strap, then it cannot also be equivalent to the Appellants' mounting shank. The Davenport anchor hook cannot simultaneously be two different things.

Second point: Davenport clearly states that anchor hooks 112 are attached to rectangular frame 105. Conventional rules of English grammar indicate that that which is attached to something is not a component part of that something unless specifically so stated. Davenport makes no such statement.

That anchor hooks 112 are fasteners configured to fasten rectangular frame 105 to base 22 is explicitly taught by Davenport. In the Davenport FIGs. 5 and 6, it may be clearly seen that anchor hooks 112 have been replaced by bolts 47, which are common fasteners well known to those of ordinary skill in the art. Davenport itself therefore equates anchor hooks 112 with other, more common fasteners. Davenport teaches that the anchor hooks 112 are fasteners used to fasten rectangular frame 105 to base 22, and not a component of rectangular frame 105.

Third point: the Appellants claim: "a mounting strap

partially embedded within said base and joined to said mounting shank." Davenport teaches a rectangular frame 105 that rests upon the base 22. No part of rectangular frame 105, as explicitly taught by Davenport, is embedded within the base 22.

Only if anchor hooks 112 are considered a part of rectangular frame 105, which Davenport teaches away from, can rectangular frame 105 be considered to be partially embedded within the base 22. But this would be an improper consideration because Davenport considers them separate and because they function to fasten the Davenport frame 105 to the base 22.

Regardless, if anchor hooks 112 are nevertheless mistakenly taken to be a part of rectangular frame 105, then they cannot be equivalent to Appellants' mounting shank, also asserted by the Office Action. Davenport would then lack an equivalence to Appellants' mounting shank, and Davenport fails to teach what is claimed, i.e., that the mounting strap is joined to the mounting shank.

To summarize, Davenport simply does not teach what is claimed by Appellants in independent claim 1 *vis-à-vis* the first erroneous assertion. The Office Action asserts that the rectangular frame of Davenport is equivalent to "a mounting strap partially embedded within said base" as claimed by Appellants in independent claim 1. It is not.

The Office Action ambiguously refers to the Davenport anchor hooks, which are partially embedded within the base, to support this assertion. Davenport expressly teaches that the anchor hooks are fasteners used to fasten the rectangular frame to the

base. They are, therefore not a part of the rectangular frame itself. Davenport, by teaching the use of fasteners, teaches away from embedding any portion of the rectangular frame in the base.

The Office Action also makes another assertion that the Davenport anchor hooks are equivalent to "a mounting shank embedded within said base" (discussed hereinafter) as claimed by Appellants. If this were to be the case, then the anchor hooks cannot also be a part of the rectangular frame "mounting strap" equivalency. The anchor hooks cannot be two different things.

With regard to the first erroneous assertion alone, the Appellants believe that independent claim 1 should be adjudged allowable under 35 U.S.C. 102(b) over Davenport.

In the second erroneous assertion, the Office Action asserts:

Davenport discloses...a mounting shank (the middle 112) embedded within the base...."

In column 6, lines 21-26, Davenport states [emphasis added] :

The horizontal flanges 110 are secured to the concrete platform member 11 by **anchor hooks 112**, which are preferably pre-welded to the bottom surfaces of the horizontal flanges 110 and embedded in the concrete platform member 22 before the concrete is poured or before it has set.

The Appellants disagree with the Office Action that the anchor hooks of Davenport are equivalent to the Appellants' mounting shank. The Davenport anchor hooks are fasteners that are only partially embedded within the base. This may readily

be seen in Davenport FIGS. 10, 11, and 12. The Appellants' mounting shank is, as very clearly recited in claim 1 and as clearly supported in the Figures, a mounting shank and not a fastener of any kind and is embedded within the base without broaching a surface of the base in any manner.

In independent claim 1, the Appellants claim "a mounting shank embedded within said base," and "a mounting strap partially embedded within said base." It is obvious from the rules of English grammar, that when, in the same sentence, action "A" is done and action "B" is partially done, that action "A" is not partially done. Were this not the case, then the word "partially" would have no meaning and would be redundant. To say, therefore, that a mounting shank is embedded and a mounting strap is partially embedded indicates that the mounting shank is not partially embedded.

Firstly, each of the Davenport anchor hooks 112 is only partially embedded in the base 22, and is not embedded in the base. That is, each anchor hook 112 has a portion that is not embedded within the base 22. None of the Davenport anchor hooks 112, therefore, can be equivalent to the Appellants' "mounting shank embedded within said base."

Secondly, it is well known in the art to use fasteners of various kinds to join a cage to a base. Davenport itself does so. The Appellants do not. It would not be normal for one of ordinary skill in the art to use the term "mounting member," of which a "mounting shank" is a part, to indicate a common fastener. To do so would be to use the term in a repugnant manner [MPEP 608.01(o)]. The term "mounting member," and its

component parts "mounting shank" and "mounting strap," would be assumed by those in the art to be something other than a common fastener. This is indeed the case.

A claim should not be taken in a vacuum. That is, a claim should be evaluated within the scope of the Specification and the Figures. It is very clear in Appellants' FIG. 5 that the mounting member (40), mounting shank (38), and mounting strap (36) of independent claim 1 are anything but common fasteners.

The Davenport anchor hooks 112 are common fasteners. This is strongly supported by Davenport FIGs. 5 and 6, which depict an alternative embodiment in which common bolts 47 are used in lieu of anchor hooks 112.

The use of the Davenport anchor hooks 112 (or common bolts 47) presents a problem specifically addressed by Appellants' present invention. In the Background section of the Specification, the Appellants state:

[0011] A third such potential weakness may be the method by which the enclosure is secured. Many such enclosures are secured to a concrete pad. For example, an enclosure secured to a pad by bolts and nuts may be unbolted by application of a suitable wrench if the bolt head or nut is accessible. Those secured by lag bolts and anchors may simply be pried free through the use of a good crowbar. Even cast-in or epoxied-in bolts may be snapped free by use of a cold chisel and hammer.

The Davenport anchor hooks are demonstrably a type of fastener which leaves the cage susceptible to being pried up with a crowbar. The fully embedded mounting shank of the present invention does not.

Furthermore, as discussed hereinbefore in conjunction with Assertion 1, the Office Action asserts that anchor hooks 112 are simultaneously both Appellants' mounting shank and a part of what is Appellants' mounting strap. This is illogical. The one and same anchor hook 112 cannot be two different things.

To summarize, Davenport simply does not teach what is claimed by Appellants in independent claim 1 *vis-à-vis* the second erroneous assertion. The Office Action asserts that an anchor hook of Davenport is equivalent to "a mounting shank embedded within said base" as claimed by Appellants in independent claim 1. It is not.

In independent claim 1, the Appellants clearly distinguish between the terms "embedded" and "partially embedded." Because of this distinction, according to the rules of English grammar, the anchor hooks of Davenport are partially embedded, not embedded, within the base.

Additionally, Davenport explicitly teaches that the anchor hooks are common fasteners, equivalent to a bolt. Conversely, the claimed mounting shank is also clearly not a common fastener. The Appellants' mounting member, of which the mounting shank is a part, is specifically introduced to eliminate the need for fasteners and the problems associated therewith. The Davenport anchor hook, being a common fastener, cannot be equivalent to the Appellants' mounting shank.

With regard to the second erroneous assertion alone, the Appellants believe that independent claim 1 should be adjudged

allowable under 35 U.S.C. 102(b) over Davenport.

In the third erroneous assertion, the Office Action asserts:

Davenport discloses...a lock device (115) configured to secure the cage to the mounting strap when the cage is connected to the base....

In column 6, lines 49-53, Davenport states:

The bottom edge portions of one or more of the end and side walls 91-94 may be secured to the vertical flanges 111 of the rectangular frame 105 by appropriate fasteners, such as sheet metal screws or bolts 115.

Sheet metal screws or bolts are common fasteners well known in the art and would neither be mistaken for nor redefined as "lock devices." To do so would again be to exert a repugnant use of terminology.

The Appellants, by claiming a "lock device," claim something that one of ordinary skill in the art would assume to be other than a common fastener. "Lock device" is an accurate descriptive term. MPEP 2173.01 states:

A fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as any special meaning assigned to a term is clearly set forth in the specification.

Appellants have done just that. Paragraph [0063] of the specification sets forth the meaning of lock device as:

[0063] Enclosure 20 includes a lock device 74 consisting of a lock rod 76 and a lock tab 78....

This is fully demonstrated in Appellants' FIGS. 3, 4, and 5.

One of ordinary skill in the art would not confuse Appellants' lock device with the common sheet metal screws or bolts of Davenport. Davenport, by explicitly teaching the use of simple fasteners, explicitly teaches away from the lock device claimed by the Appellants.

The use of the sheet metal screws or bolts 115 of Davenport to secure the cage 90 to the rectangular frame 105 presents exactly the same problem as discussed hereinbefore in conjunction with using anchor hooks 112 or bolts 47 to secure the rectangular frame 105 to the base 22. That is, the cage 90 may be separated from the base 22 by use of a crowbar or a hammer and chisel (see Specification paragraph [0011] *supra*).

The Davenport sheet metal screws or bolts 115 are undeniably fasteners. The Appellants' claimed lock device is undeniably not a fastener.

It is clearly demonstrated in the application that both fasteners and lock devices are well known to the Appellants. It is the lock device, not the fastener, that is recited in claim 1. It is a gross misrepresentation of what the prior art teaches to gratuitously declare that the prior art, which teaches the same common fasteners that create a problem, teaches appellants lock device which is the solution to the problem. This completely disregards the Appellants intent as clearly

expressed in claim 1. By using the term "lock device" it is clear that appellant intended something other than fastener. A gratuitous assertion by the Office Action that a Davenport fastener is magically equivalent to the Appellants' lock device does not make it so. Such an assertion can only have been made through hindsight.

To summarize, Davenport simply does not teach what is claimed by Appellants in independent claim 1 vis-à-vis the third erroneous assertion. The Office Action asserts that a common fastener, the Davenport sheet metal screw or bolt 115, is equivalent to "a lock device configured to secure said cage to said mounting strap" as claimed by Appellants in independent claim 1. It is not.

In independent claim 1, the Appellants use the term "lock device" to clearly distinguish the desired device from a common fastener. The sheet metal screw or bolt 115 of Davenport is undeniably a common fastener. Davenport explicitly teaches away from the lock device claimed by the Appellants.

The use of the Davenport sheet metal screws or bolts 115 presents a problem that the Appellants' lock device overcomes.

With regard to the third erroneous assertion alone, the Appellants believe that independent claim 1 should be adjudged allowable under 35 U.S.C. 102(b) over Davenport.

In conclusion, Davenport fails to teach either a partially embedded mounting strap, an embedded mounting shank, or a lock device as claimed in independent claim 1. These failures make

the rejection of independent claim 1 under 35 U.S.C. 102(b) over Davenport improper. When considering these failures, either severally or in combination, independent claim 1 should be clearly adjudged allowable under 35 U.S.C. 102(b) over Davenport.

Neither would it be obvious to one of ordinary skill in the art to modify Davenport to more closely resemble that which is claimed. Davenport teaches a simple rectangular frame 105 which rests upon a base (concrete platform member) 22 and is fastened thereto by surface fasteners (anchor hooks 112 or bolts 47), and also teaches attaching a cage 90 to the rectangular frame 105 using sheet metal screw or bolts 115. Davenport does not teach any component(s) embedded within the base 22, or any component(s) other than anchor hooks 112 or bolts 47 partially embedded within the base 22, within the grammatically correct meanings of "embedded" and "partially embedded" as used by the Appellants.

Davenport would have to be first modified to have an embedded mounting shank and a partially embedded mounting strap in lieu of anchor hooks 112 or bolts 47, and then further modified to use a locking device in lieu of sheet metal screws or bolts 115, as claimed by Appellants in independent claim 1. There is no suggestion of such a modification. As stated in In re Gordon et al., 221 USPQ 1125 at 1127 (Fed. Cir. 1984) and repeated in In re Laskowski, 10 USPQ 1397 at 1398 (Fed. Cir. 1989) :

The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.

The assertions by the Office Action that Davenport teaches the Appellants' partially embedded mounting strap, embedded mounting shank, and lock device are irrational in light of Davenport, and could only have been made through hindsight. As stated in W.L. Gore & Associates, Inc. V. Garlock, Inc., 220 USPQ 303, 312-313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984):

To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim of the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

The Appellants respectfully request that independent claim 1 be judged allowable over Davenport.

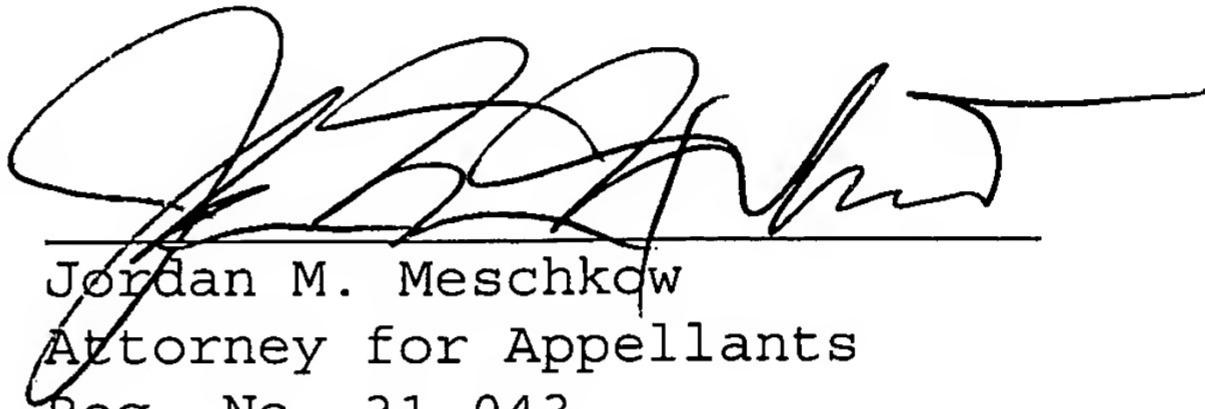
Claims 2 and 4 through 14 depend, either directly or indirectly, from independent claim 1. Inasmuch as the Appellants believe independent claim 1 to be allowable for the reasons discussed hereinbefore, the Appellants believe claims 2 and 4 through 14 to be allowable by reason of dependency.

Conclusion

Claims 1-2 and 4-20 are included in this appeal. The rejections of claims 1, 2, 4, and 6 under 35 U.S.C. 102(b) as being anticipated by Davenport, claims 8-11 under 35 U.S.C. 103(a) as being unpatentable over Davenport in view of GuardShack, and claims 12-13 under 35 U.S.C. 103(a) as being unpatentable over Davenport in view of GuardShack as applied to claim 11, and further in view of Clements, are believed to be improper.

The Appellants believe that the arguments above fully respond to every outstanding ground of rejection and that the contested claims should be found allowable.

Respectfully submitted,



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Dated: 28 September 2006

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APPELLANTS' BRIEF
Serial No. 10/661,157
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Appendix A -- Claims on Appeal

This Appendix is 14 pages, including this cover page, and contains a clean double-spaced copy of the claims on appeal.

Claim 1: A security enclosure for a control apparatus, said enclosure comprising:

a base;

a cage configured to connect to said base and encompass said apparatus;

a mounting member comprising:

a mounting shank embedded within said base; and

a mounting strap partially embedded within said base and

joined to said mounting shank, and configured to

extend inside said cage substantially perpendicular

to said base when said cage is connected to said

base; and

a lock device configured to secure said cage to said mounting strap when said cage is connected to said base.

Claim 2: An enclosure as claimed in claim 1 wherein:

 said mounting strap is a first mounting strap;

 said enclosure additionally comprises a second mounting strap joined to said mounting shank and configured to extend inside said cage substantially perpendicular to said base when said cage is connected to said base; and

 said lock device is configured to secure said cage to said first and second mounting straps when said cage is connected to said base.

Claim 3 (Withdrawn).

Claim 4: An enclosure as claimed in claim 1 wherein:

 said mounting strap is a first mounting strap partially embedded within said base;

 said enclosure additionally comprises a second mounting strap partially embedded within said base, joined to said mounting shank, and configured to extend inside said cage substantially perpendicular to said base when said cage is connected to said base;

 said mounting shank extends between said first and second mounting straps; and

 said lock device is configured to secure said cage to said first and second mounting straps when said cage is connected to said base.

Claim 5: An enclosure as claimed in claim 1 wherein:

 said mounting strap has a strap width and a strap thickness;

 said cage has a strap engagement slot having a slot width greater than said strap width and a slot thickness greater than said strap thickness; and

 said mounting strap extends substantially vertically inside said cage through said strap engagement slot when said cage is connected to said base.

Claim 6: An enclosure as claimed in claim 1 wherein:

 said cage has a cage lock hole;

 said mounting strap has a strap lock hole; and

 said lock device is configured to reside within said cage and strap lock holes when said cage is connected to said base.

Claim 7: An enclosure as claimed in claim 6 wherein:

 said lock device comprises a lock rod and a movable lock tab having a tab hole;

 said cage comprises a fixed lock tab having a tab hole; and

 said lock rod is configured to reside within said cage and strap lock holes with said fixed and movable tab holes substantially in alignment when said cage is connected to said base.

Claim 8: An enclosure as claimed in claim 1 wherein said cage comprises:

 a frame;

 a first end panel;

 a second end panel; and

 a perforated body panel.

Claim 9: An enclosure as claimed in claim 8 wherein said frame comprises:

a first "U" member having a first upright portion and a second upright portion;

a second "U" member having a third upright portion and a fourth upright portion;

a first angle member coupled between said first and second upright portions;

a second angle member coupled between said second and third upright portions;

a third angle member coupled between said third and fourth upright portions; and

a fourth angle member coupled between said fourth and first upright portions.

Claim 10: An enclosure as claimed in claim 8 wherein said frame comprises a brace coupled between said first and second "U" members.

Claim 11: An enclosure as claimed in claim 1 wherein said cage comprises:

- a first "U" member;
- a second "U" member;
- a first end panel affixed to said first "U" member;
- a second end panel affixed to said second "U" member; and
- a perforated body panel affixed between said first and second "U" members.

Claim 12: An enclosure as claimed in claim 11 wherein one of said first end panel, said second end panel, and said perforated body panel is formed of perforated sheet metal.

Claim 13: An enclosure as claimed in claim 12 wherein said perforated sheet metal is 10-18 gauge sheet steel.

Claim 14: An enclosure as claimed in claim 1 wherein:

 said lock device comprises:

 a movable lock tab; and

 a lock rod; and

 said enclosure additionally comprises:

 a fixed lock tab coupled to said cage;

 a shroud configured to enshroud said fixed and movable lock tabs

when said cage is connected to said base.

Claim 15: A security enclosure for a control apparatus, said enclosure comprising:

a base;

a cage configured to connect to said base and encompass said apparatus;

a mounting member comprising:

a pair of mounting straps, wherein each of said mounting straps is partially embedded within said base and has a strap lock hole; and

a mounting shank embedded within said base, and extending between and joined to each of said mounting straps;

a fixed lock tab affixed to said cage and having a tab hole;

a lock device comprising:

a movable lock tab having a tab hole; and

a lock rod coupled to said movable lock tab; and

a shroud configured to enshroud, in conjunction with said base, said fixed lock tab, said movable lock tab, and a lock having a shackle passing through said tab holes of said fixed and movable lock tabs when said cage is connected to said base.

Claim 16: An enclosure as claimed in claim 15 wherein:
said enclosure additionally comprises a lock plate coupled to
said cage and having a cage lock hole;
each of said mounting straps is partially embedded within
said base and configured to extend inside said cage
substantially perpendicular to said base so that said strap lock
hole substantially aligns with said cage lock hole when said
cage is connected to said base; and
said lock rod is configured to reside within said cage and
strap lock holes when said cage is connected to said base.

Claim 17: An enclosure as claimed in claim 16 wherein:
said shroud is coupled to said lock plate;
said shroud enshrouds said fixed lock tab, said movable lock
tab, and said lock upon three sides; and
said base enshrouds said fixed lock tab, said movable lock
tab, and said lock upon a fourth side.

Claim 18: An enclosure as claimed in claim 15 wherein:
each of said mounting straps is partially embedded within
said base and configured to extend inside said cage
substantially perpendicular to said base when said cage is
connected to said base; and
said lock rod is configured to couple said cage to each of
said mounting straps.

Claim 19: An enclosure as claimed in claim 18 wherein:

a first one of said pair of mounting straps has a first strap lock hole;

a second one of said pair of mounting straps has a second strap lock hole substantially aligned with said first strap lock hole;

said cage comprises a first lock plate having a first cage lock hole;

said cage additionally comprises a second lock plate having a second cage lock hole substantially aligned with said first cage lock hole and, when said cage is connected to said base, substantially aligned with said first and second strap lock holes; and

said lock rod is configured to reside in said first and second cage lock holes and said first and second strap lock holes when said cage is connected to said base.

Claim 20: A security enclosure for a fluid-control apparatus, said enclosure comprising:

a cage connected to a base and configured to encompass said apparatus, said cage comprising:

a first "U" member;

a second "U" member;

a first angle member coupled between said first and second "U" members and having a first strap engagement slot;

a second angle member coupled between said first and second "U" members and having a second strap engagement slot;

a first lock plate coupled between said first and second "U" members and having a first cage lock hole;

a second lock plate coupled between said first and second "U" members and having a second cage lock hole substantially aligned with said first cage lock hole

a fixed lock tab proximate said first cage lock hole and having a tab hole;

a first end panel coupled to said first "U" member;

a second end panel coupled to said second "U" member;

a perforated body panel coupled between said first and second "U" members; and

a brace coupled between said first and second "U"

members;

a mounting member comprising:

a first mounting strap partially embedded within said base, configured to extend inside said cage substantially perpendicular to said base through said first strap engagement slot, and having a first strap lock hole configured to substantially align with said first and second cage lock holes;

a second mounting strap partially embedded within said base, configured to extend inside said cage substantially perpendicular to said base through said second strap engagement slot, and having a second strap lock hole configured to substantially align with said first strap lock hole and with said first and second cage lock holes; and

a mounting shank embedded within said base and joined to said first and second mounting straps;

a lock device configured to secure said cage to said first and second mounting straps, said lock device comprising:

a movable lock tab having a tab hole; and
a lock rod coupled to said movable lock tab and configured to reside within said first cage lock hole, said first strap lock hole, said second strap lock hole, and said second cage lock hole so as to

align said tab holes of said fixed and movable lock
tabs; and

a shroud coupled to said first lock plate and configured to
enshroud, in conjunction with said base, said fixed lock tab,
said movable lock tab, and a lock having a shackle passing
through said tab holes of said fixed and movable lock tabs.

Appendix B -- Evidence

This Appendix is 28 pages, including this cover page, and contains clean copies of all evidence (i.e., prior art references) under consideration. This evidence is listed below:

1. Davenport, U.S. Patent No. 4,890,638 9 pages
2. GuardShack Product Line Brochure (2000)
Backflow Prevention Device InnClosures 4 pages
3. Clements et al., U.S. Patent No. 6,203,591 14 pages

PRODUCT LINE BROCHURE

VANDAL & THEFT RESISTANT ENCLOSURES THAT WORK BEAUTIFULLY

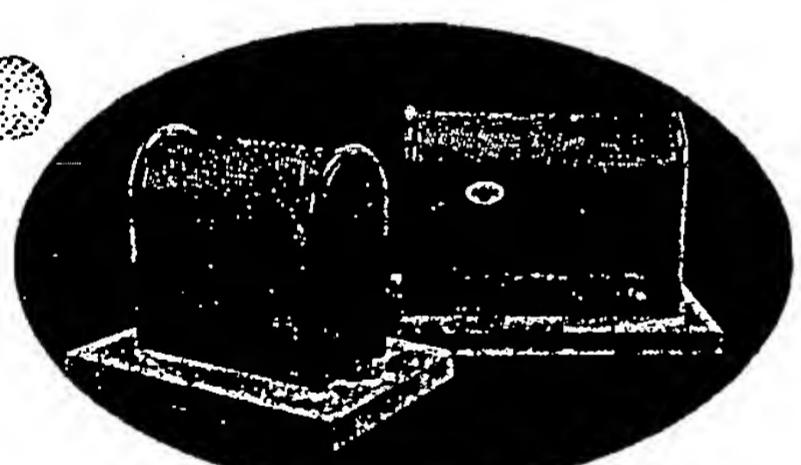
GS-1



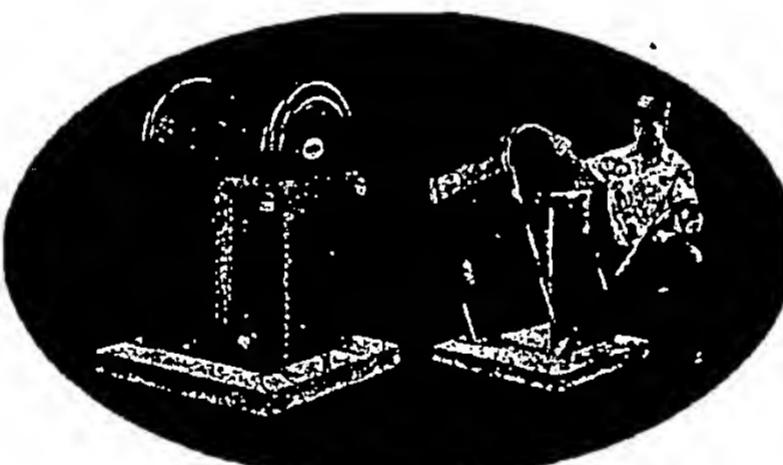
Enclosures to protect any type or size of Backflow Prevention Assembly, also Pedestal Mounted Clocks & Wall Timers, Air Vacuum Relief Valves, Pumps, Lights & more.

All units are shown installed on BPDI's own Pre-manufactured EncPad™ Enclosure Pad.

The Safe, Beautiful way to protect your backflow assembly



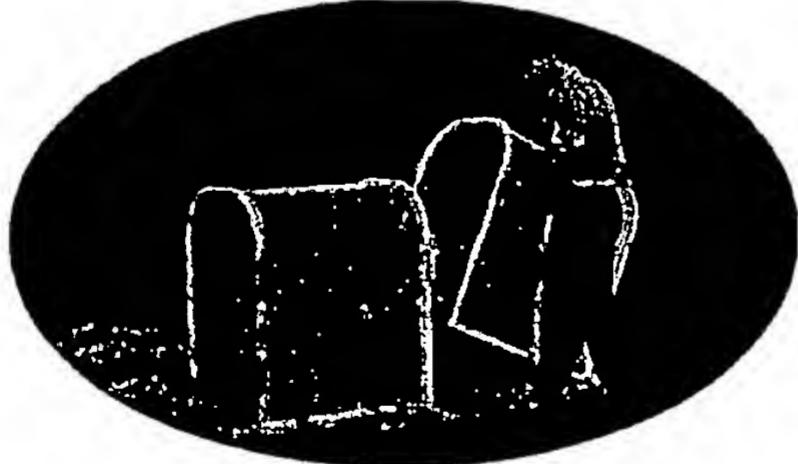
SS CGS-1 & CGS-2



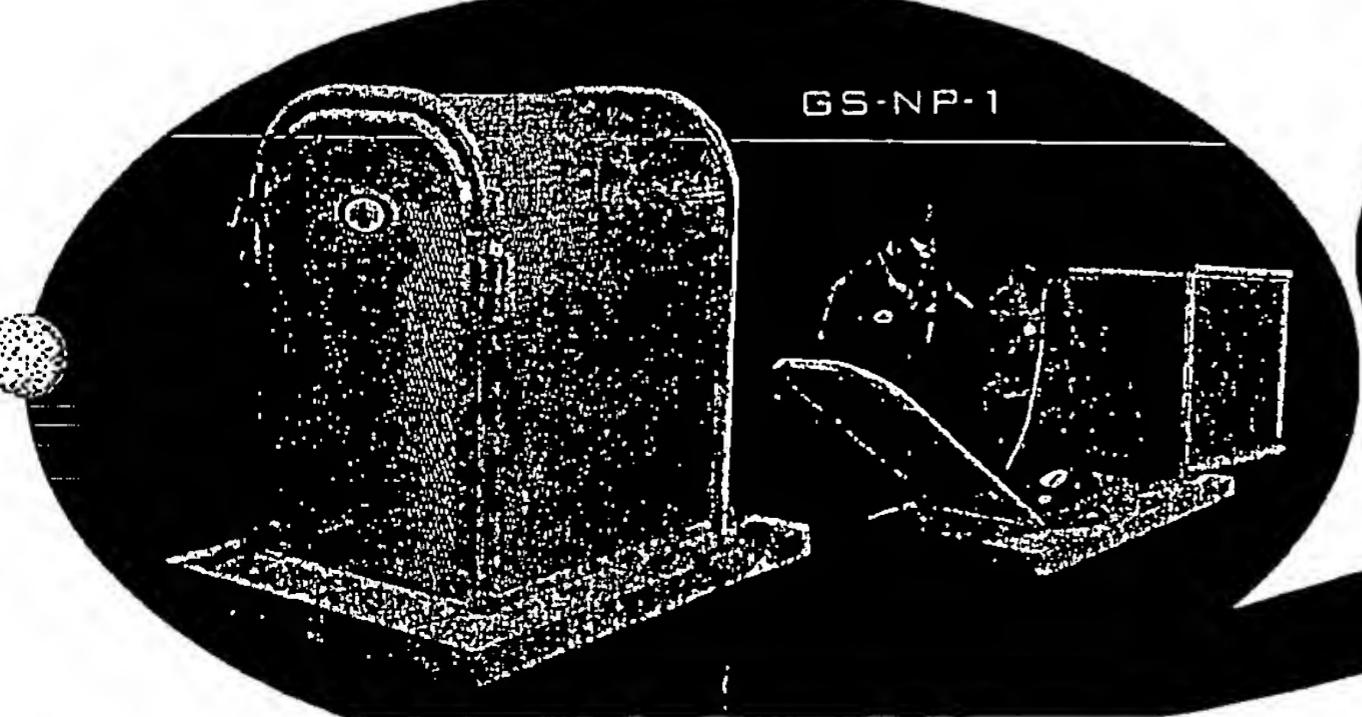
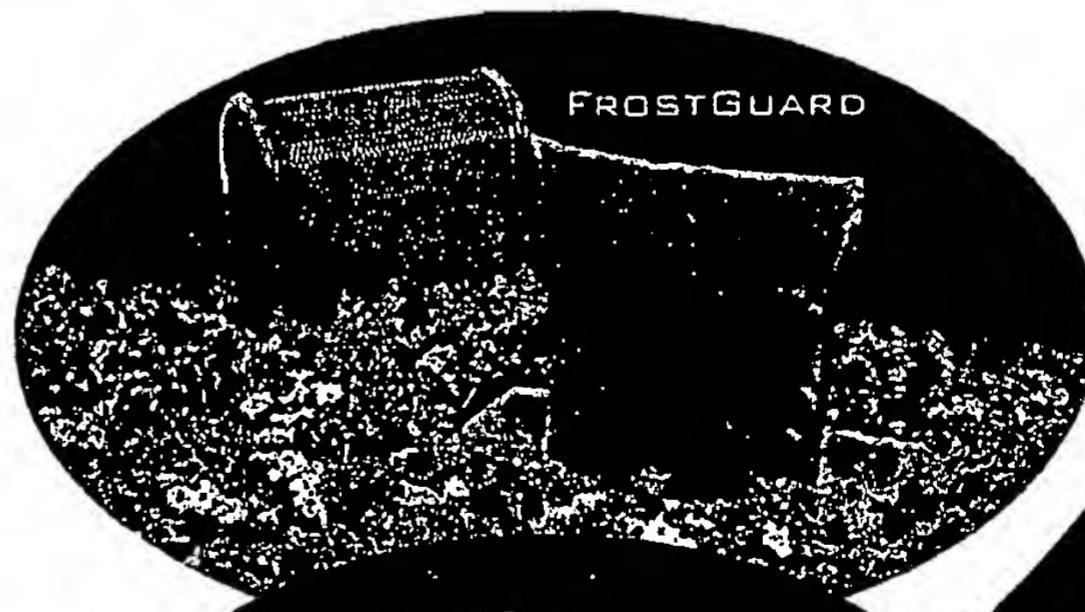
GS-M1 & KADDYSHACK™-M1



GS-3



GS-5



GS-NP-1



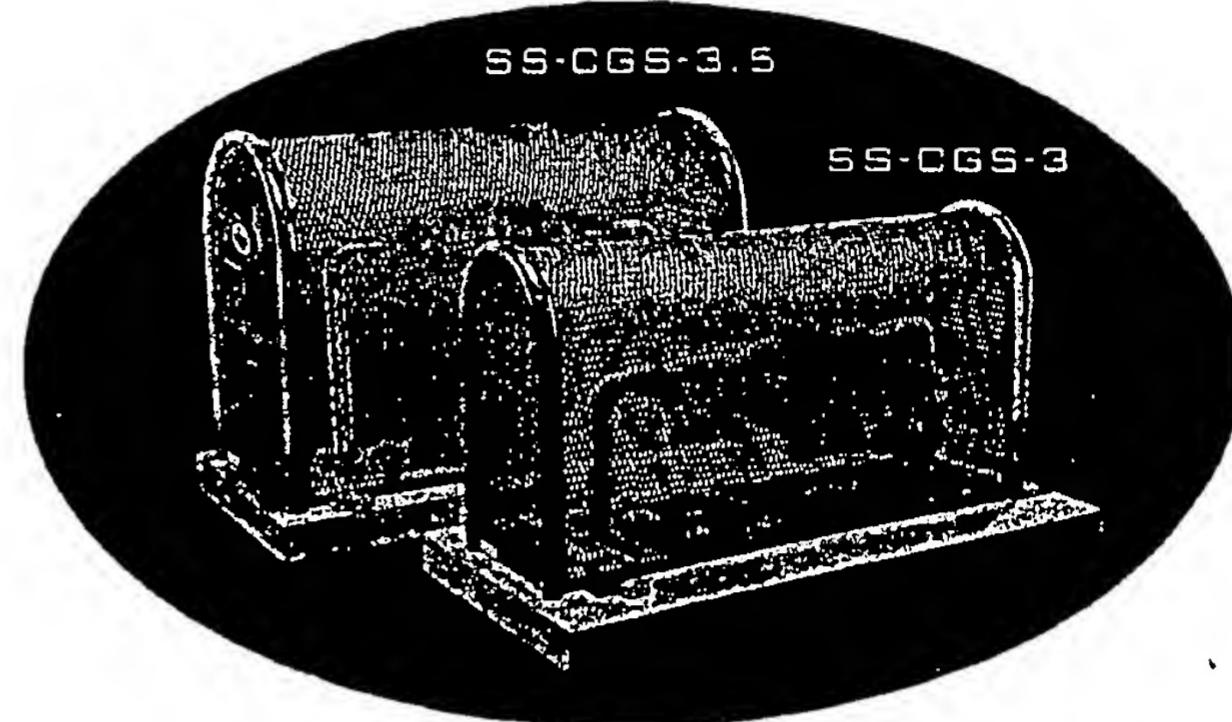
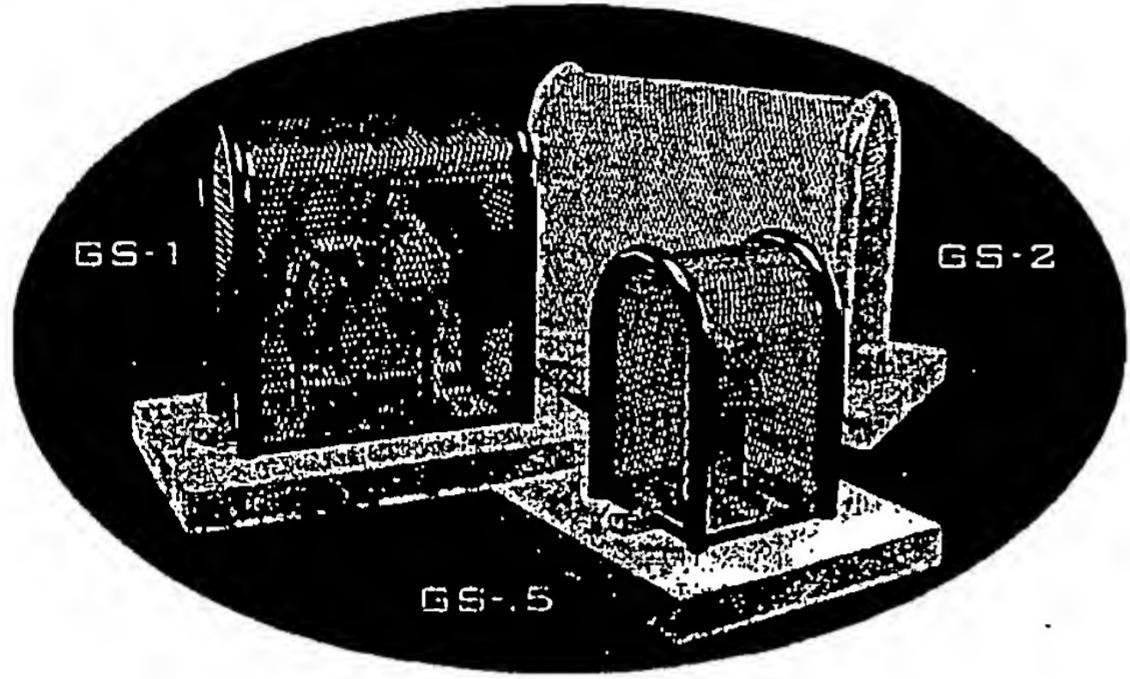
BACKFLOW PREVENTION DEVICE ENCLOSURES
GUARD SHACK: THE SHAPE OF THINGS TO COME.
1-800-266-5411
WWW.BPDI.COM

GUARDSHACK™ AND COAST GUARDSHACK™

The Safe, Beautiful way to protect your backflow assembly.

Never any sharp corners or edges so it's perfect for schools, parks, and other meeting places where people come into close contact with a backflow assembly. All GuardShack™ (GS) enclosures are powdercoated in our standard Forest Green and Woodlands Tan colors. All Coast GuardShack™ (CGS) enclosures are constructed of

304 stainless steel, sandblasted to remove all of the sharp edges and burrs typically found on stainless steel expanded metal. The "Silver Satin" finish of the Coast GuardShack™ can be further enhanced and protected against handling marks by the application of an optional ultra-strong marine-grade clearcoat powdercoat finish, see below.



Product Features:

- Rugged construction prevents vandalism and theft
- Complete access for testing and service work
- Easy to install instructions and all hardware provided
- Optional Lock Shield Brackets available for most models to safeguard unit from boltcutters (Specify as: Model # w/ LSB)
- Optional silkscreened medallions, (pictured on various units), available for corporate logos, city seals and insignias

FROSTGUARD™

INSULATED BLANKET



GS-3 w/ FG-3 FROSTGUARD

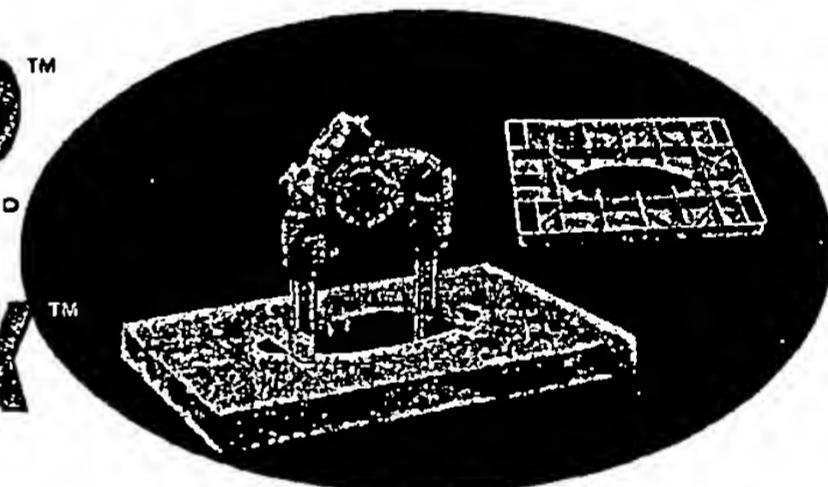
Available in R-13 and R-30 models to protect your backflow assembly from the occasional cold snap. The FrostGuard™ blanket is constructed of an extremely tough Green Calliope Polymeric Resin Coated Polyester fabric with a very high UV resistance so you can leave it on your assembly year round.

ENCPAD™

NO CONCRETE REQUIRED
(PATENT PENDING)

PADLOK™

ANCHORING SYSTEM



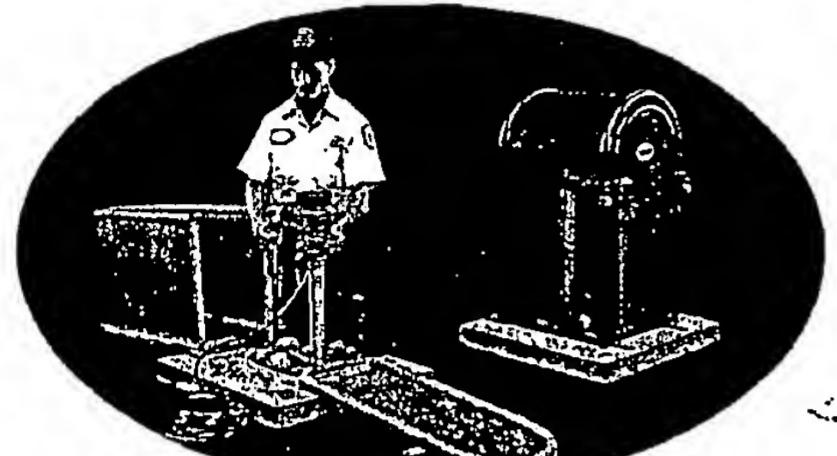
The pre-manufactured enclosure pad that is better than concrete! Now install any GuardShack™ Enclosure, without concrete; most models install in less than one hour! The EncPad™ is an incredibly strong, yet extremely lightweight base, constructed of UV stabilized meter box type plastic, with a precut hole to fit over your assembly. The EncPad™ can be removed and reinstalled in just minutes if you ever need to repair a leak under the pad. The larger EncPad™ sizes come in easily joined together sections, and only 2-3 hours are required to install even our largest clam shell models, right down to the fine grading! All PadLok™ anchoring hardware is included with the EncPad™, or order EncPad™ "Less PadLok™" (LPL) and fill center hole with concrete.

GuardShack™ and Coast GuardShack™ Enclosures for 1/2" - 2" Standard Backflow Assemblies

| MODEL | INSIDE DIM. | TYPE | ENCPAD™ MODEL | ENCPAD™ DIM. | FROSTGUARD™ MODEL |
|-------------------|-----------------------|---------|---------------|----------------------|-------------------|
| GS-.5 (P.C. only) | 10" w x 18" h x 10" l | Liftoff | EP-5 | 24" w x 24" l x 3" d | FG-5 |
| GS-1 / CGS-1 | 10" w x 24" h x 22" l | Liftoff | EP-1 | 24" w x 36" l x 3" d | FG-1 |
| GS-2 / CGS-2 | 10" w x 24" h x 30" l | Liftoff | EP-2 | 24" w x 42" l x 3" d | FG-2 |
| GS-3 / CGS-3 | 10" w x 24" h x 40" l | Hinged | EP-3 | 24" w x 48" l x 3" d | FG-3 |
| CGS-3.5 (SS only) | 16" w x 30" h x 40" l | Hinged | EP-3 | 24" w x 48" l x 3" d | FG-3 or FG-4 |
| GS-4 / CGS-4 | 16" w x 30" h x 46" l | Hinged | EP-4 | 30" w x 60" l x 3" d | FG-4 |

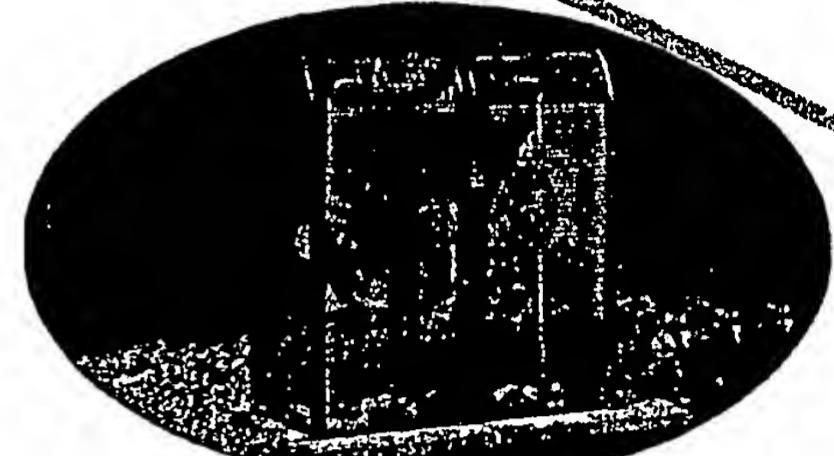
GuardShack™ and Coast GuardShack™ Enclosures for ½" - 2" Extra Tall Assemblies

| MODEL | INSIDE DIM. | ENCPAD MODEL | ENCPAD DIM. | SIZED FOR: |
|----------------|-------------------------|--------------|----------------------|--------------|
| GS-M1 / CGS-M1 | 16" w x 37" h x 18" l | EP-M1 | 30" w x 30" l x 3" d | ½" - 2" PVBs |
| GS-M2 / CGS-M2 | 16" w x 48" h x 18" l | EP-M1 | 30" w x 30" l x 3" d | ½" - 2" PVBs |
| GS-M3 / CGS-M3 | 16" w x 37" h x 39 ½" l | EP-M3 | 30" w x 60" l x 3" d | ½" - 2" RPs |
| GS-M4 / CGS-M4 | 16" w x 48" h x 39 ½" l | EP-M3 | 30" w x 60" l x 3" d | ½" - 2" RPs |



SS-CGS-M1 & GS-M1

These models are identical to the KaddyShack™ models on back page. Custom sized FrostGuard™ Insulated Blankets are available for these models. The GS-M4 (right) allows the safe, secure installation of an above ground water meter, plus leaves plenty of room for a 2" RPA and Pressure Reducing Valve.



GS-M4

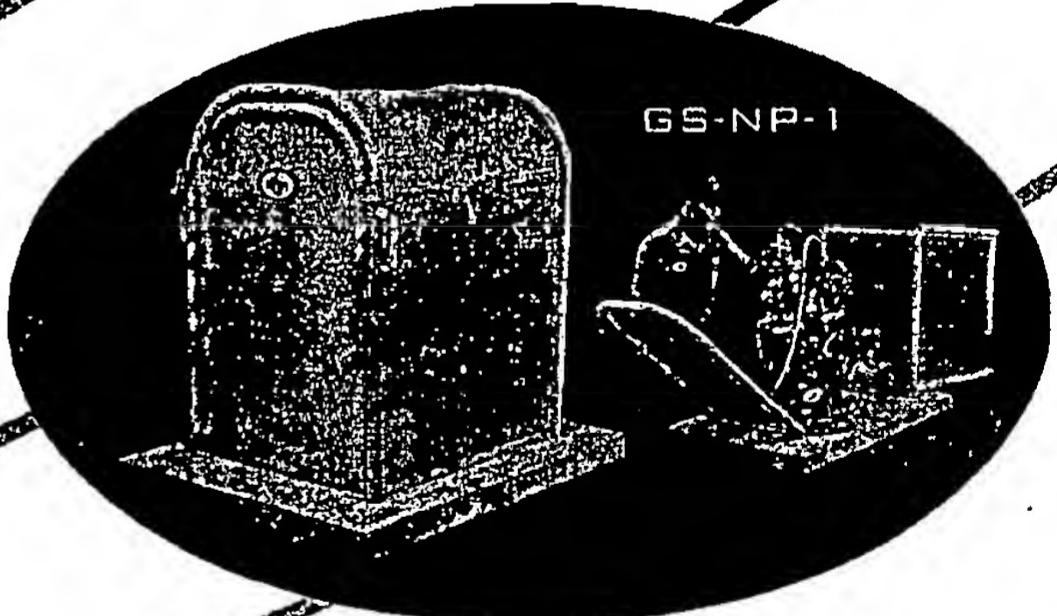
GuardShack™ and Coast GuardShack™ Enclosures for 2½" - 10" Standard Assemblies

| MODEL | INSIDE DIM. | ENCPAD MODEL | ENCPAD DIM. | SIZED FOR: |
|--------------|----------------------------|--------------|-----------------------|-----------------------------|
| GS-5 / CGS-5 | 24" w x 40" h x 66" l | EP-5 | 36" w x 84" l x 3" d | 2 ½"-3" RPs, DCAs |
| GS-6 / CGS-6 | 24" w x 40" h x 80" l | EP-6 | 36" w x 96" l x 3" d | 4" RPs, DCAs |
| GS-7 | 30" w x 48" h x 96" l | EP-7 | 50" w x 120" l x 4" d | 6" RPs, DCAs |
| GS-8 | 38" w x 60" h x 99 ½" l | EP-7 | 50" w x 120" l x 4" d | 8" Febco 860 / 850 |
| GS-9 | 38" w x 56 ¾" h x 151 ½" l | EP-9 | Special Order | 8"-10" RPs, DCAs |
| GS-10 | 38" w x 56 ¾" h x 202" l | EP-10 | Special Order | Extra long 8"-10" RPs, DCAs |

GS-5 through GS-8 units are 2-piece clam shells (see GS-5 pictured on cover) GS-9 is a 3-piece, & GS-10 is a 4-piece clam shell.



Lengths shown for GS-9 and GS-10 are max. lengths. Actual lengths can be telescoped in as needed for a perfect fit. Custom Sized FrostGuard™ Insulated Blankets available for these models. Some OS&Y tolerances are narrow.



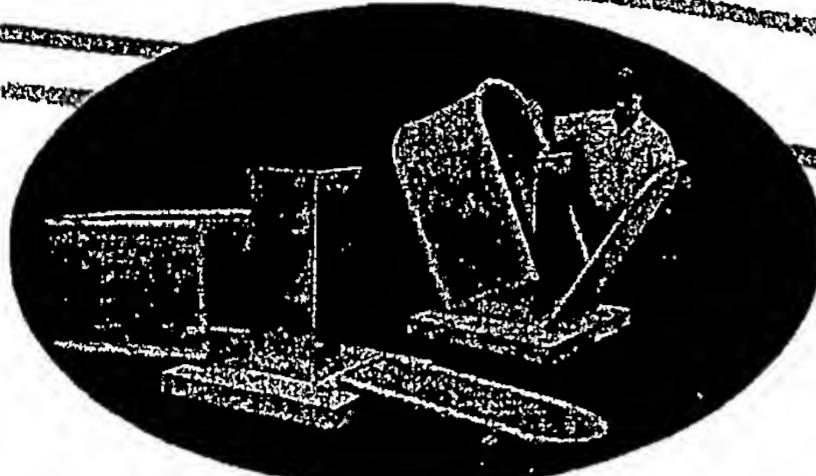
"NP" Style GuardShack™ and Coast GuardShack™ Enclosures for 2½" - 10" "N" Pattern Assemblies

| MODEL | INSIDE DIM. | ENCPAD MODEL | ENCPAD DIM. | SIZED FOR: |
|------------------------|-------------------------|--------------|----------------------|---|
| GS-NP-1 / CGS-NP-1 | 24" w x 40" h x 31 ¼" l | EP-NP-1 | 36" w x 48" l x 3" d | 2 ½"-4" NRS RPs & DCAs |
| GS-NP-1.5 / CGS-NP-1.5 | 24" w x 40" h x 38 ¼" l | EP-NP-1.5 | 36" w x 60" l x 3" d | Misc. Automatic Control Valves & Air / Vacuum Relief Valves |
| GS-NP-2 | 30" w x 48" h x 46 ¼" l | EP-NP-2 | 48" w x 72" l x 3" d | 2 ½"-4" OS&Y RPs & DCAs; 6" NRS RPs & DCAs |
| GS-NP-3 | 38" w x 60" h x 48" l | EP-NP-2 | 48" w x 72" l x 3" d | 6" OS&Y RPs & DCAs; 8"-10" NRS RPs & DCAs |

"NP" style units operate exactly like KaddyShack™ units. Custom sized FrostGuard™ Insulated Blankets are available for these models.

KADDYSHACK™ AND CLOCKGUARD™

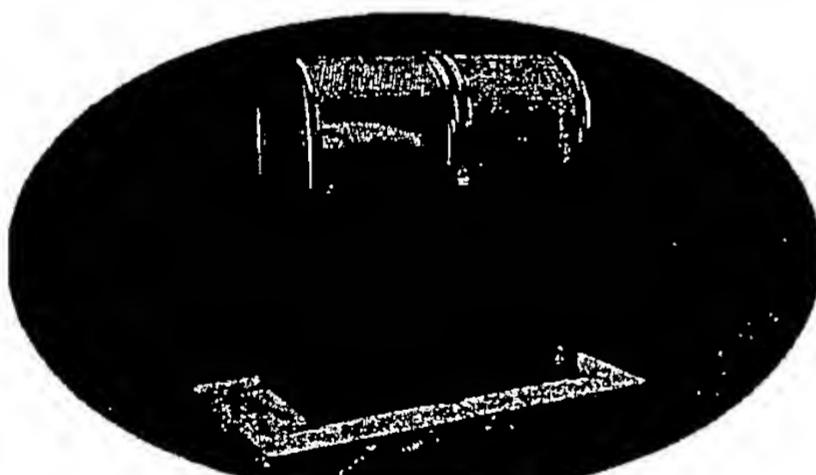
For Free Standing, Pedestal Mounted Clocks



STAINLESS STEEL KADDYSHACK™ KS-M1-SS

KaddyShack™ Enclosures protect pedestal mounted controllers from vandalism while offering you complete access to your controller, from any side. Because both sections of each KaddyShack™ model are hinged, all elements swing completely out of the way for servicing, so there's no need for a separate hinged top or special doors. Available in Powdercoated & Stainless Steel models.

| MODEL | INSIDE DIM. |
|------------------|---------------------------|
| KS-M1 / KS-M1-SS | 16" w x 37" h x 18" l |
| KS-M2 / KS-M2-SS | 16" w x 48" h x 18" l |
| KS-M3 / KS-M3-SS | 16" w x 37" h x 39 1/2" l |
| KS-M4 / KS-M4-SS | 16" w x 48" h x 39 1/2" l |



KADDYSHACK™ KS-M4

FABRICATION SPECIFICATIONS:

GuardShack™, KaddyShack™, ClockGuard™

1 1/4" Sch. 40. A.S.T.M. - A-53 Gr. A.E.W. steel pipe for end frames, except for ClockGuard.
1" x 1" x 1/8" steel angle iron base (ClockGuard angle iron 1/2" x 1/2" x 1/8").
1/2" #13 ga. diamond pattern flat rolled expanded steel with all welded construction, 4" o/c.
Expanded metal die formed for uniformity.

SS Coast GuardShack™, SS KaddyShack™

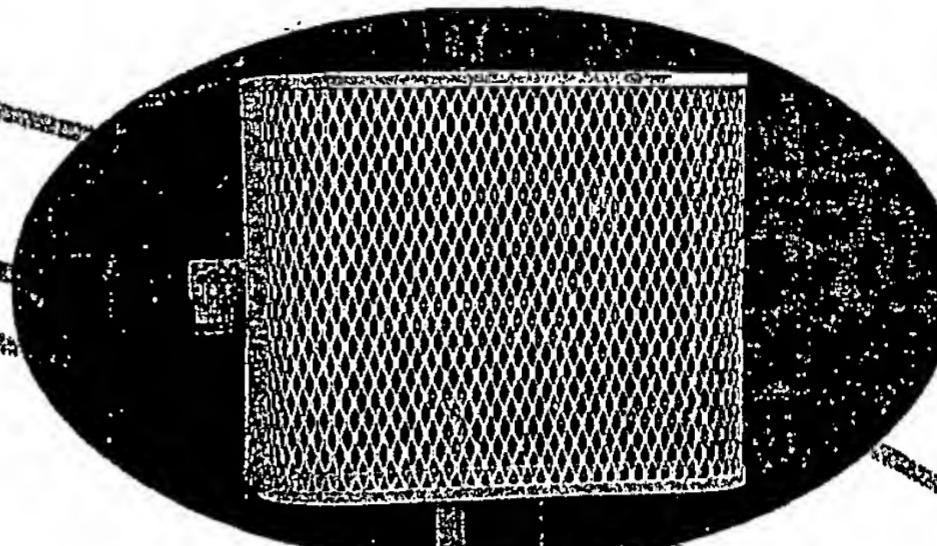
Same specifications as above, except in 304 stainless steel (at BPDI's option 1 1/2" #9 ga. diamond pattern expanded metal may be substituted for 1/2" #13 ga. units). All stainless steel products sand blasted to remove the sharp edges and burrs inherent to all SS expanded metal products.

POWDER COAT SPECIFICATIONS:

State-of-the-art five part metal cleaning process and iron phosphate solution treatment. Unit preheated before applying 1.5 - 2.0 mil thickness polyester powder to A.S.T.M. D-2794 Impact Resistant Specifications and A.S.T.M. D-3559 Adhesive Specifications. Extended warranty available when ordering optional ultra tough marine grade clearcoat powdercoat finish over either sandblasted stainless steel units or normally powdercoated units.

WARRANTY: BPDI warranties this product for one (1) year from date of purchase to be free of defects in material and workmanship. All claims must be made known to BPDI in writing within 30 days of the defect becoming known to the purchaser. There are no warranties that extend beyond those described herein, either expressed or implied. BPDI reserves the sole right, at its own option, to repair or replace any defective product and shall exclude any damage caused by accident, misuse or abuse of the product. In no case shall BPDI be liable for any incidental or consequential damages what-so-ever.

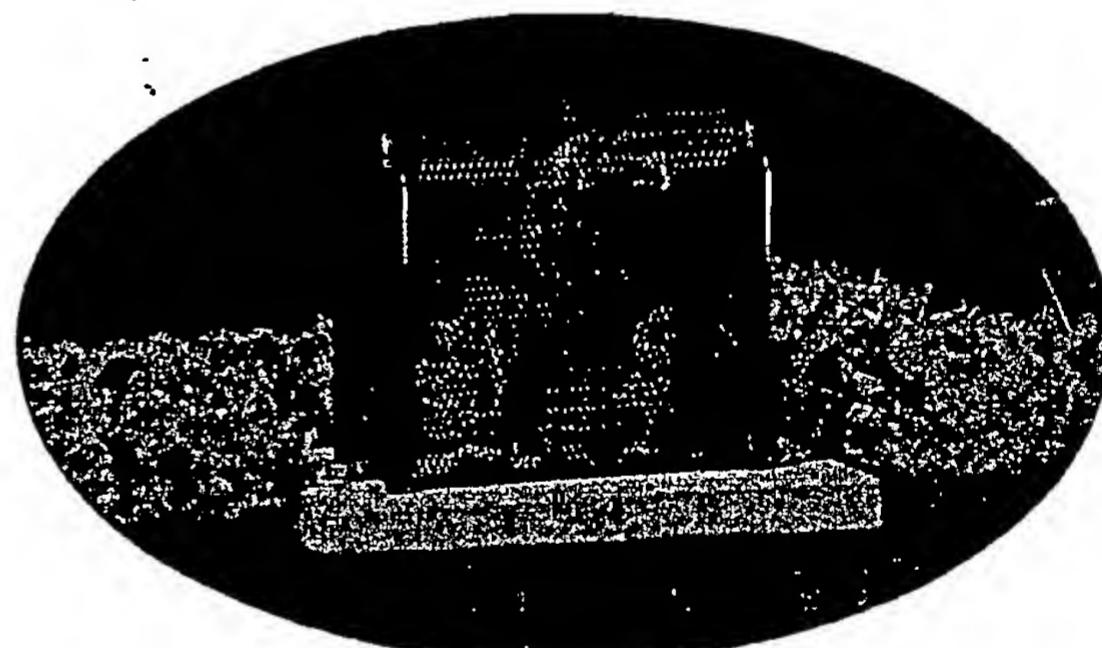
For Wall Mounted Timers



CLOCKGUARD™ CG-2

ClockGuard™ - The safe attractive way to protect your wall mounted sprinkler controllers or backflow assemblies. The ClockGuard™, with it's clean, no-nonsense lines and rounded corners for pedestrian safety, is available in 2 sizes to protect virtually any type of wall mounted sprinkler clock. Standard powdercoat colors are high gloss Oyster White or Sprinkler Clock Grey. An open strip under the unit allows access for controller wires and power access.

| MODEL | SIZE |
|-------|--------------------------|
| CG-1 | 12" l x 12" h x 6 1/2" d |
| CG-2 | 18" l x 15" h x 7 1/2" d |



GS-1 COVERING AIR/VACUUM RELIEF VALVE

Use BPDI Enclosures to install Air/Vacuum Relief Valves and Backflow Assemblies above ground to both eliminate the cost of underground vaults and to dramatically lower maintenance costs. Likewise, protect your pumps, lighting fixtures and more while eliminating expensive fenced-in enclosures, block or brick screening walls & concrete pads.



Backflow Prevention Device InnClosures

15840 N. 32nd Street, Suite 4 Phoenix, AZ 85032
(602) 788-5411 • Fax (602) 788-6104 • 1 (800) 266-5411

Your Local Distributor:

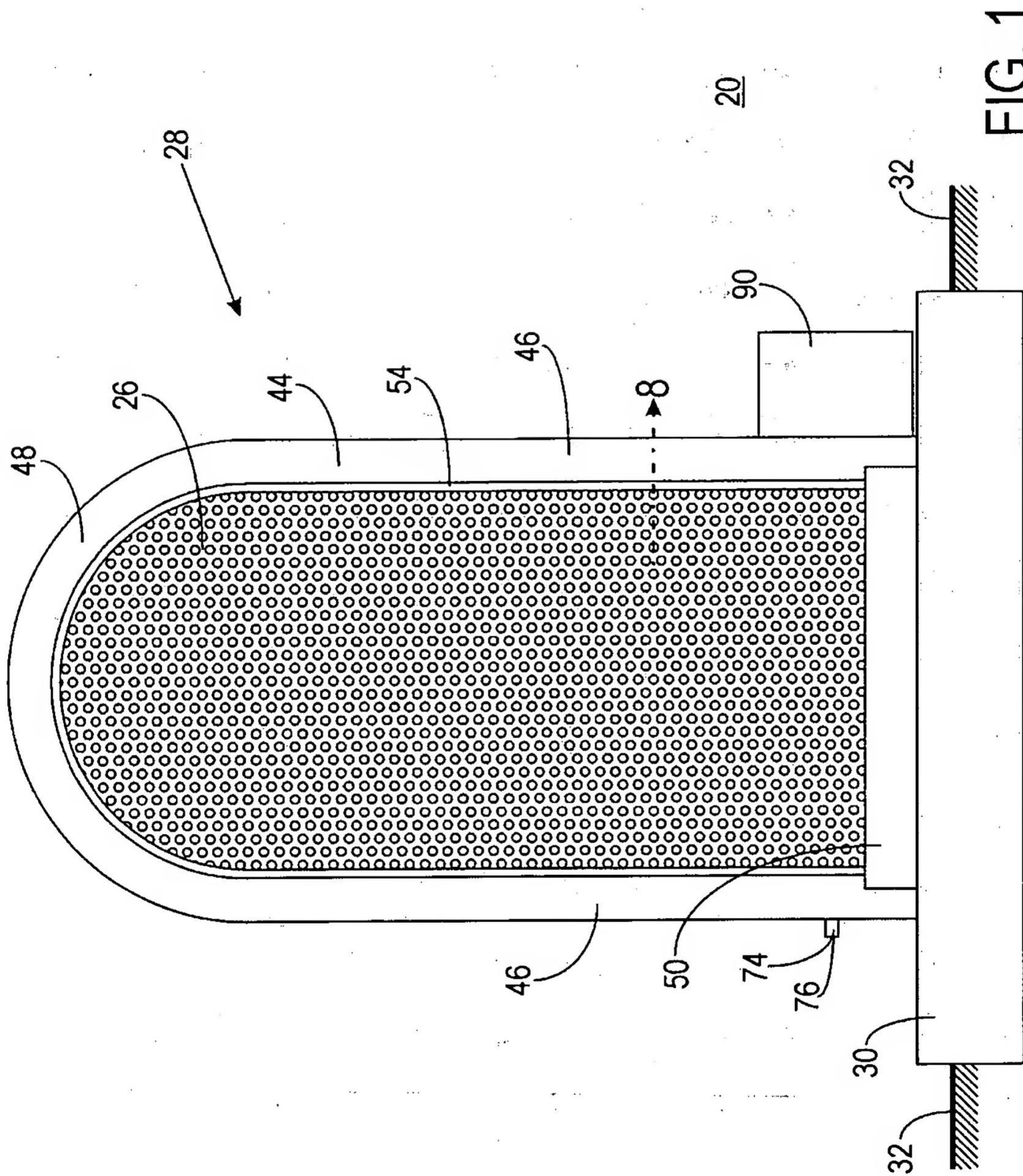
Appendix C -- Figures

This Appendix is 8 pages, including this cover page, and contains drawing sheets 1/7 through 7/7 containing a clean copy of each of Figures 1 through 10.

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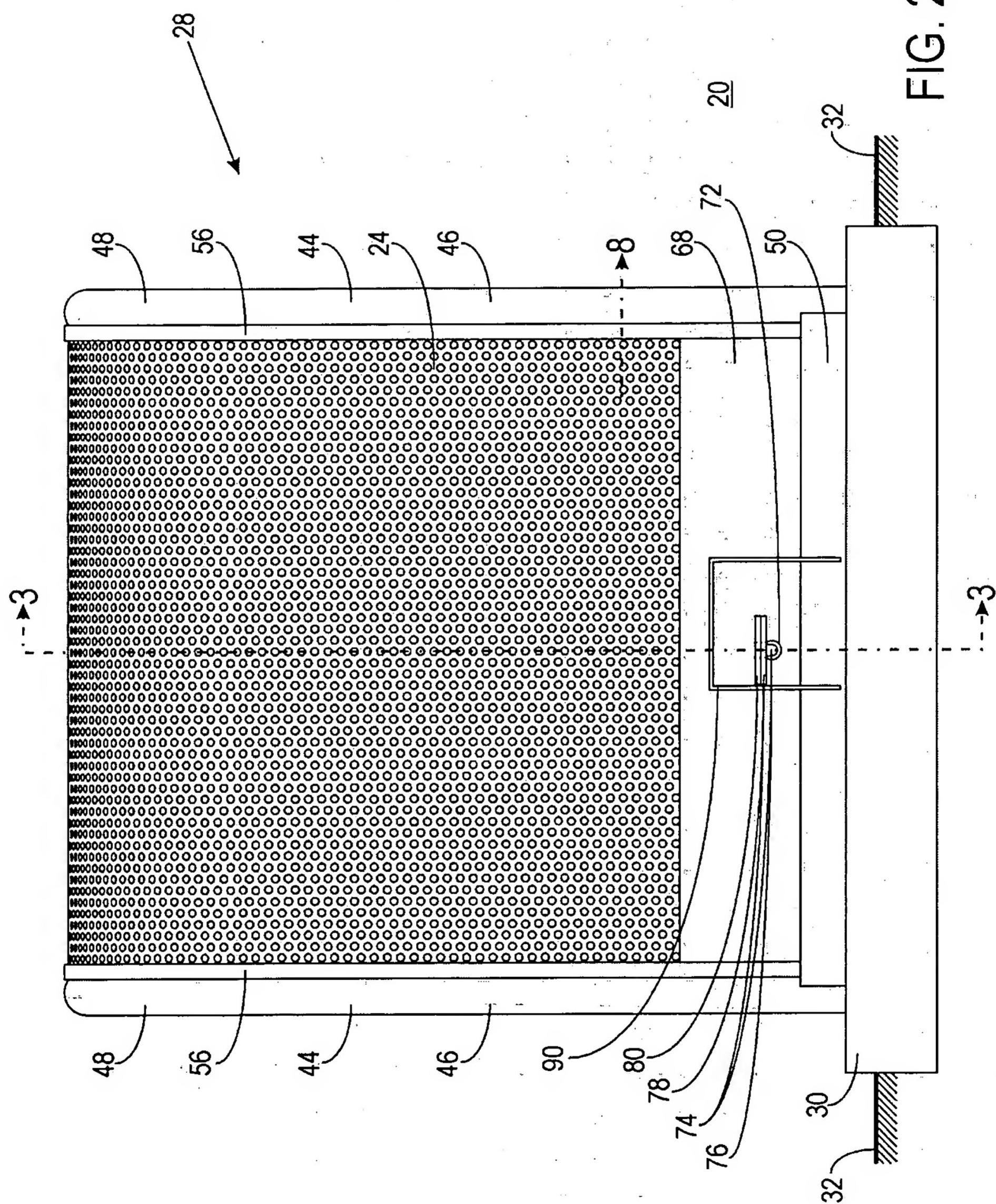
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2/7



2
FIG

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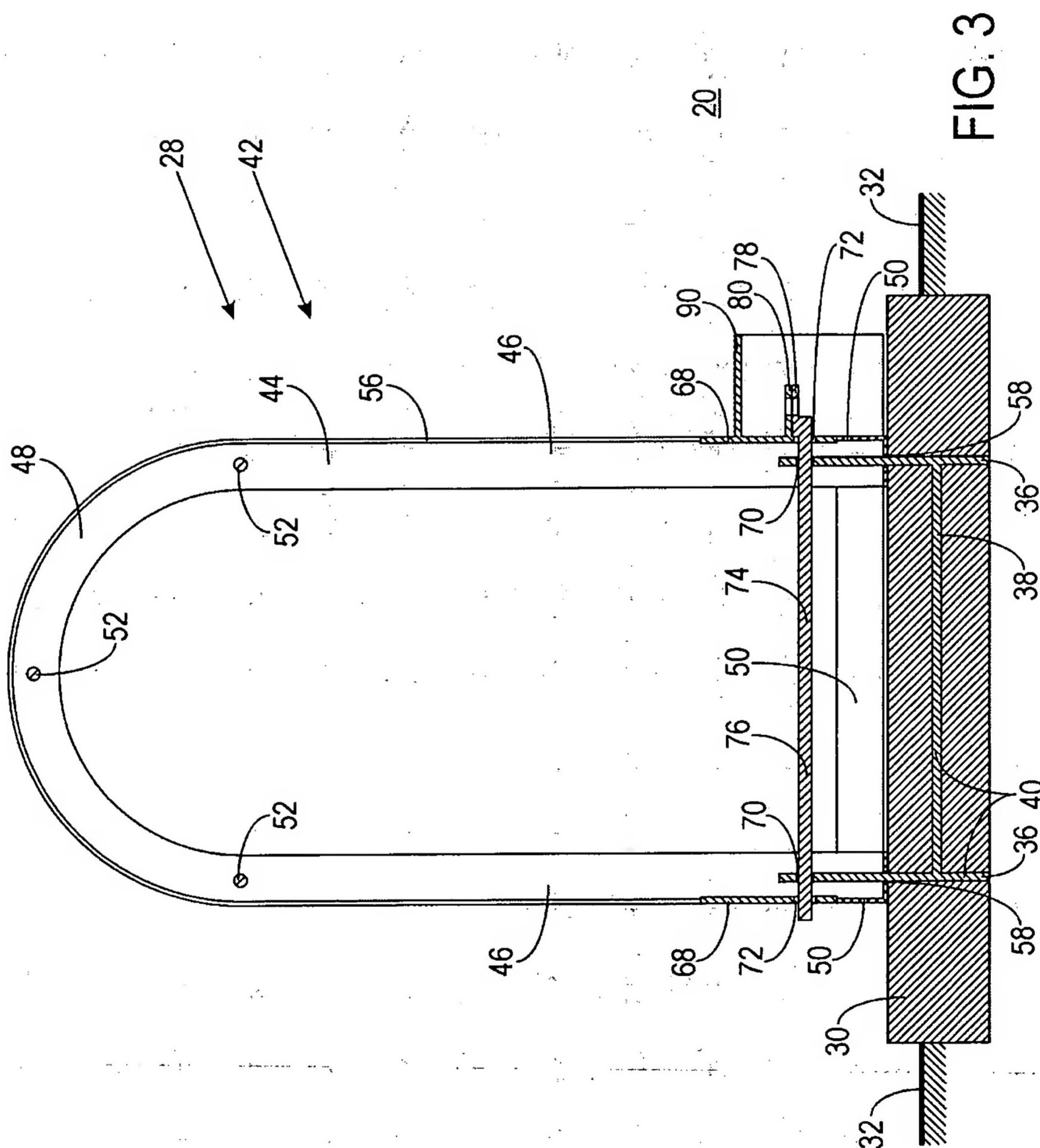


FIG. 3

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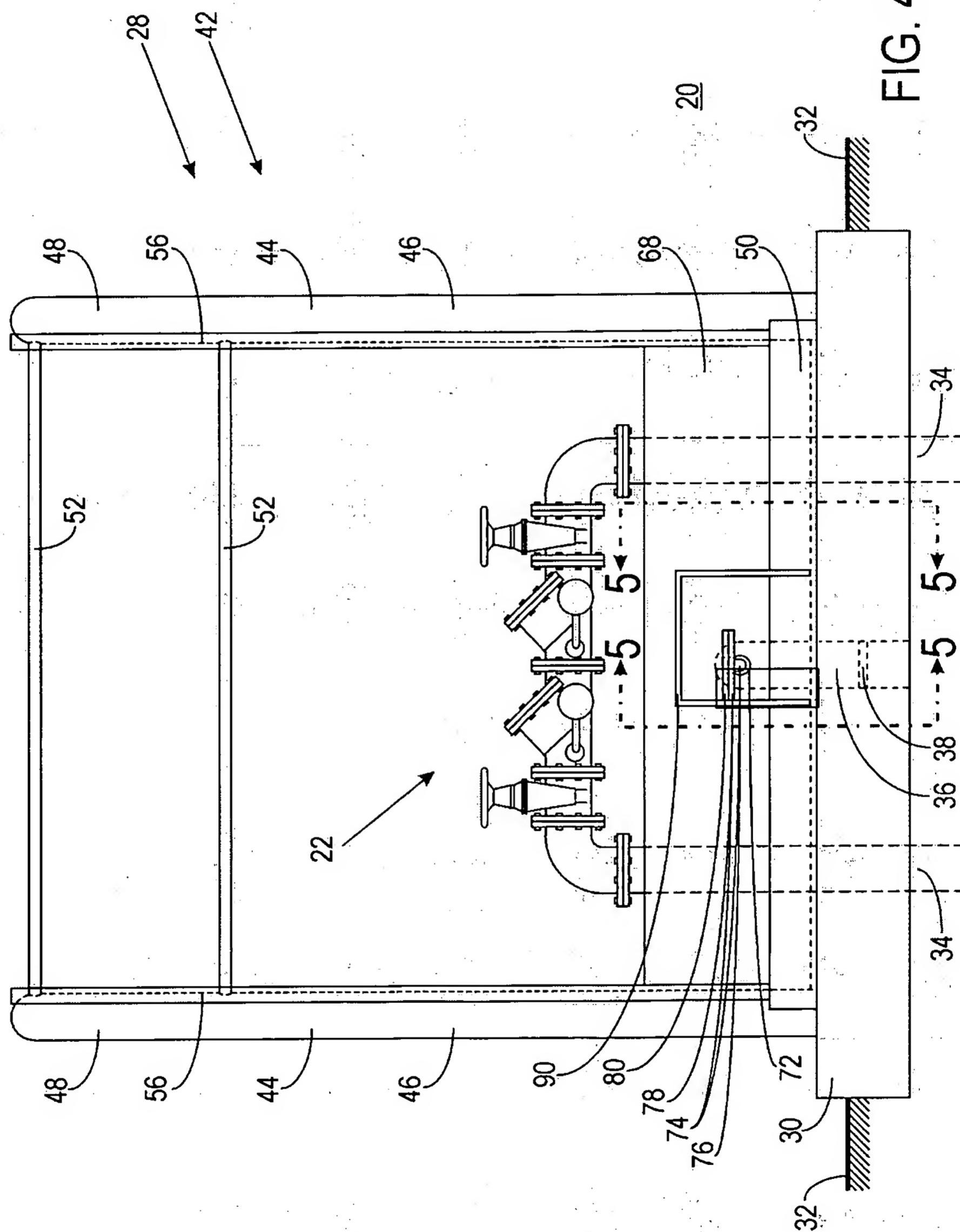


FIG. 4

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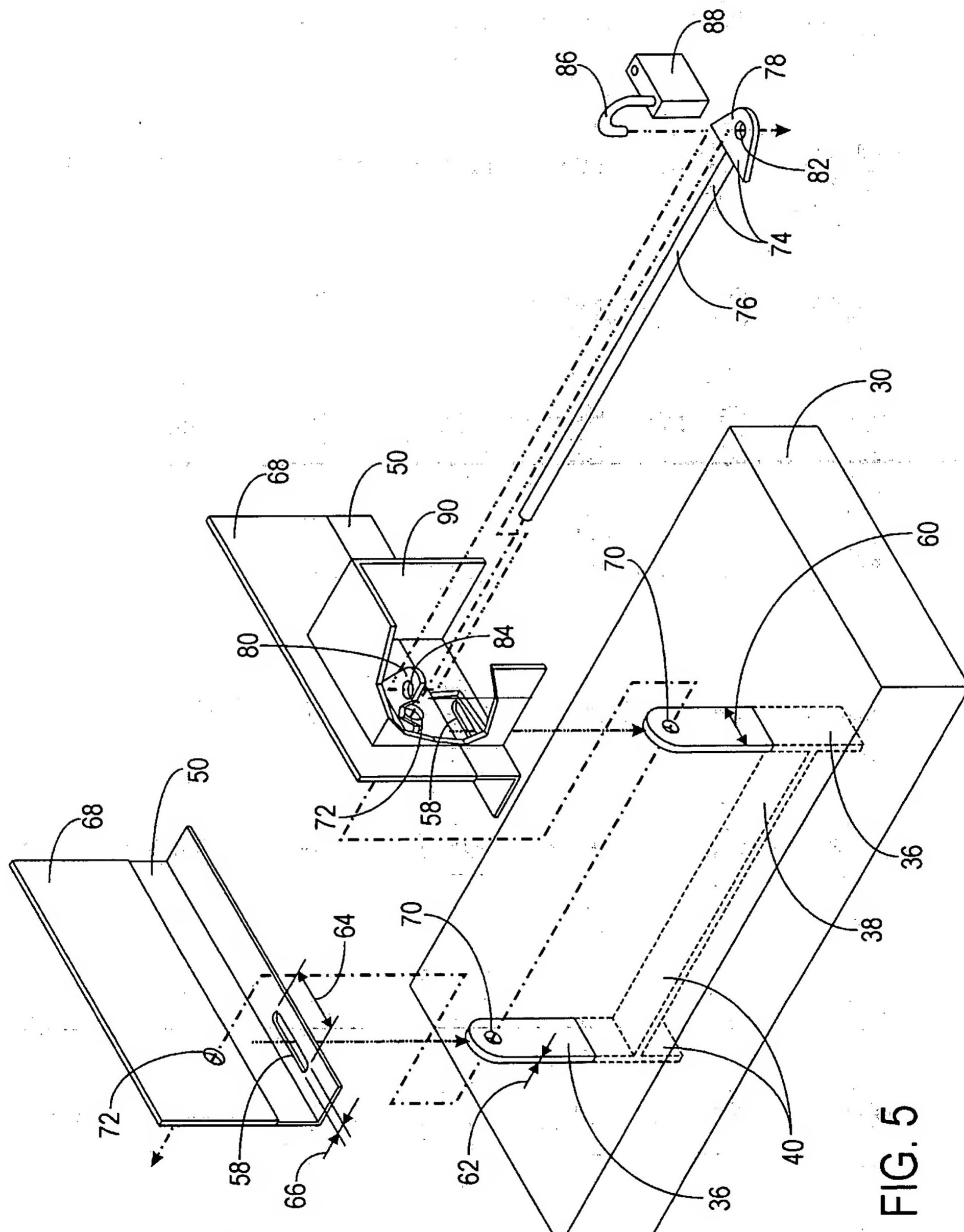


FIG. 5

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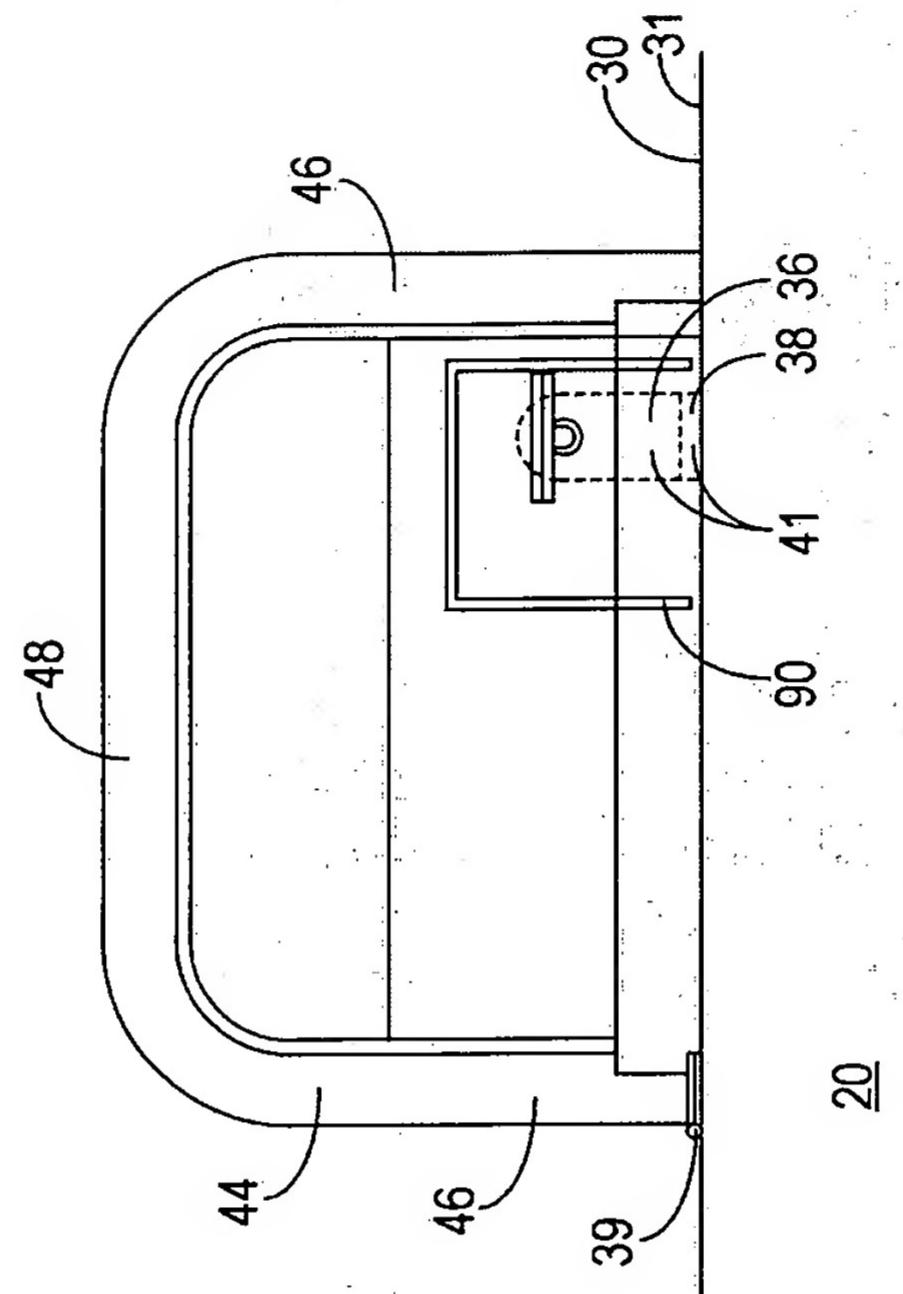
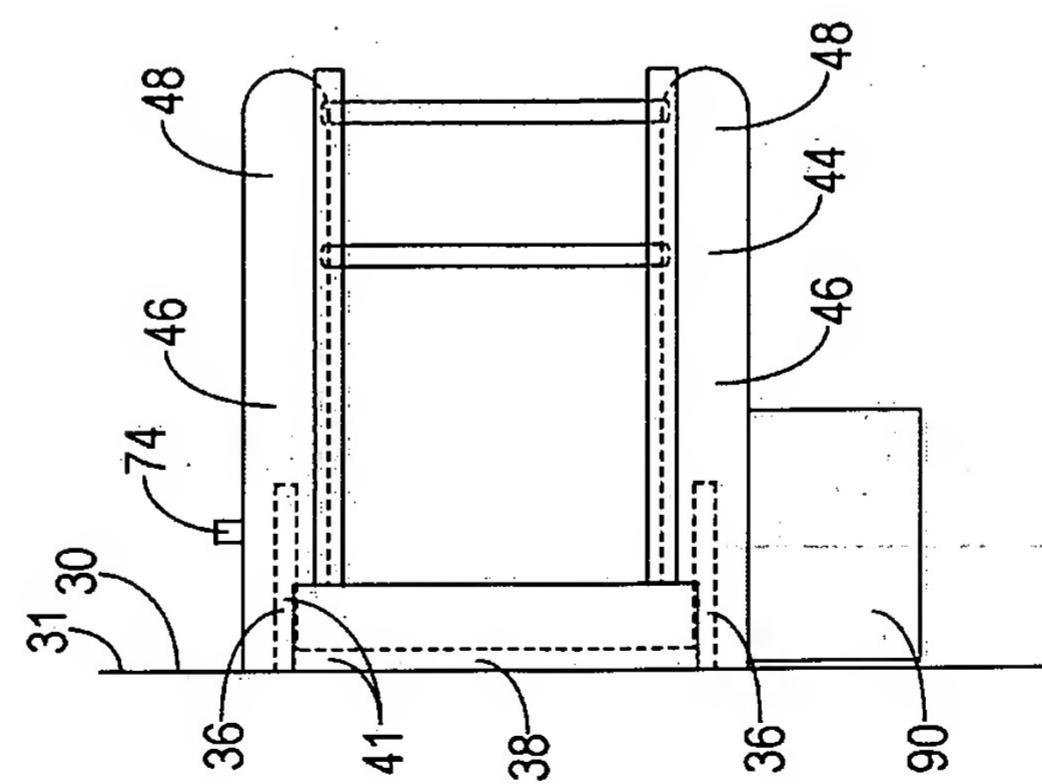


FIG. 7

20 FIG. 6



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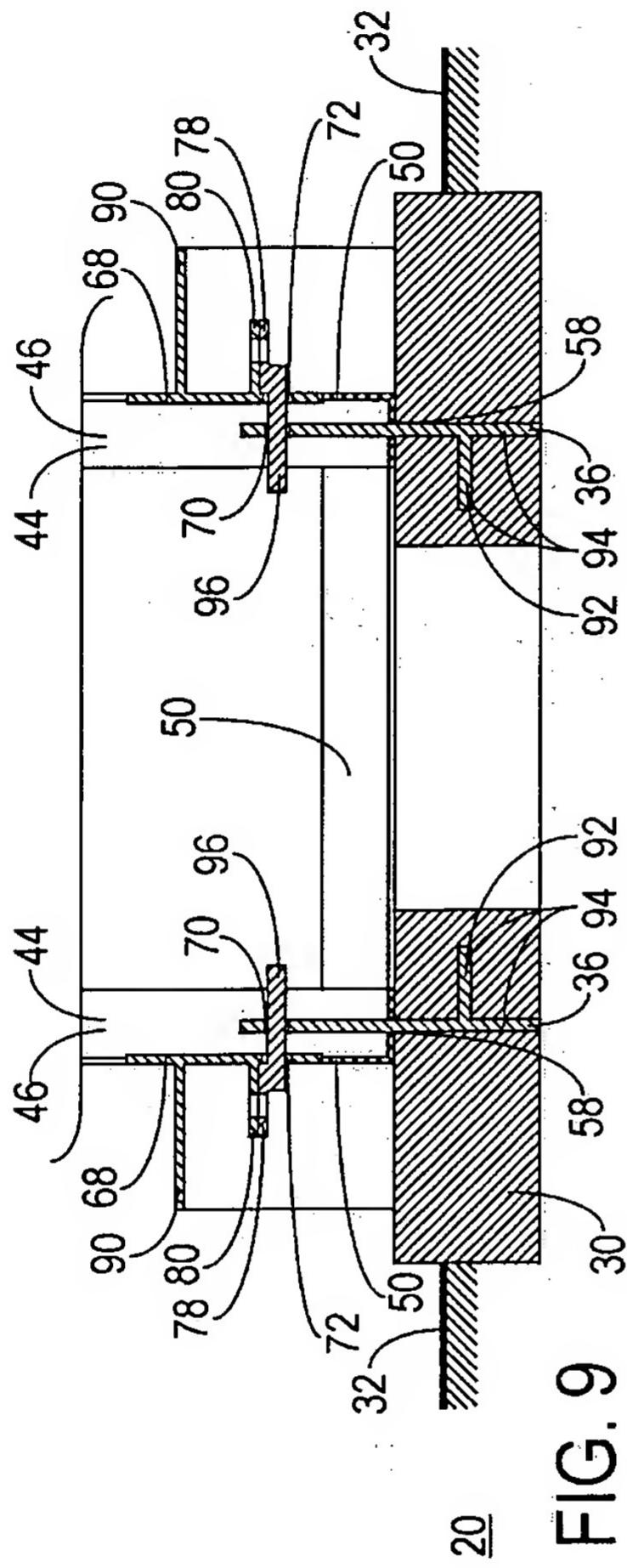


FIG. 9

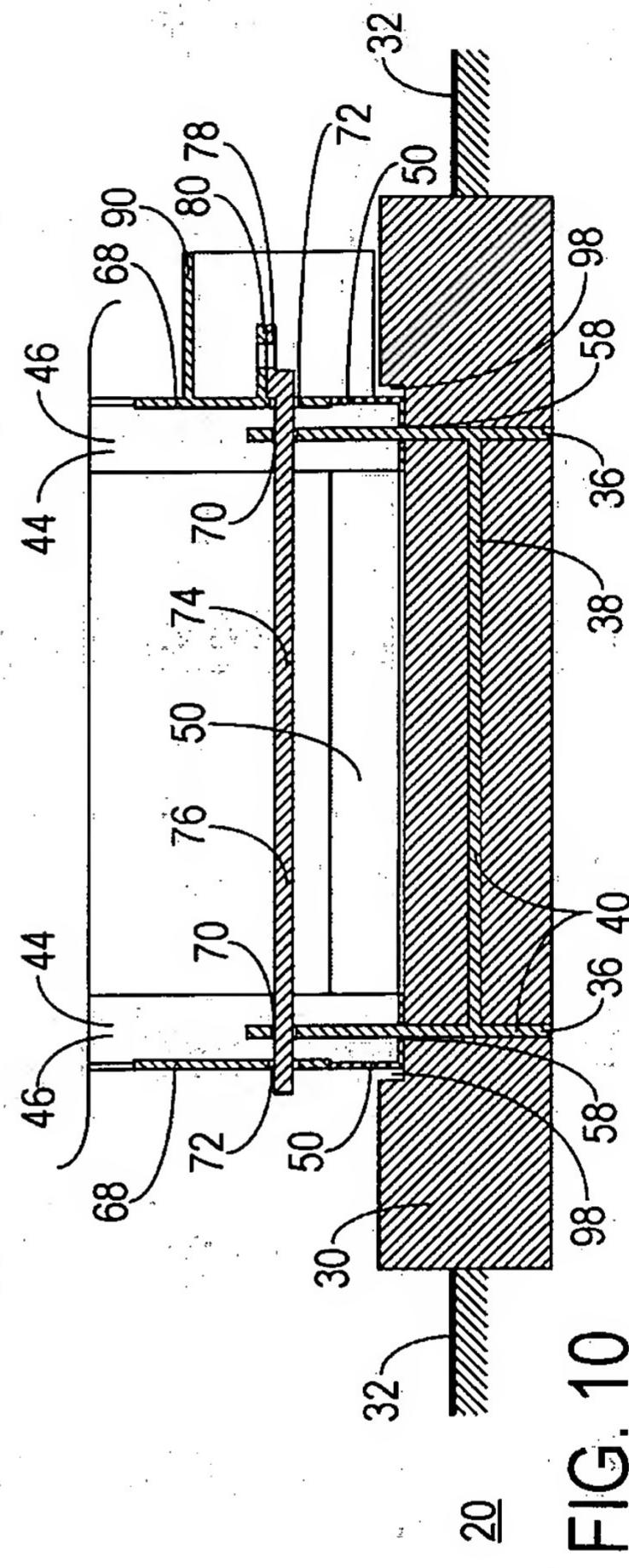


FIG. 10

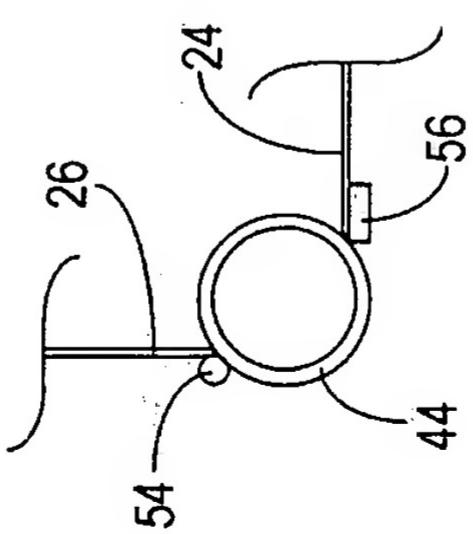


FIG. 8

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Appendix D -- Related Proceedings

Appellants are aware of no related proceedings relevant to this matter.

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